OIPE

Does Not Comply
Corrected Diskette Needed

.raw

```
 4 <110> APPLICANT: Arthur B. Raitano
 5          Daniel E.H. Afar
 6          Aya Jakobovits
 7          Mary Faris
 8          Rene S. Hubert
 9          Steve Chappell Mitchell
10          Douglas C. Saffran
12 <120> TITLE OF INVENTION: NOVEL G PROTEIN-COUPLED RECEPTOR
13          UP-REGULATED IN PROSTATE CANCER AND USES THEREOF
16 <130> FILE REFERENCE: 511582002410
18 <140> CURRENT APPLICATION NUMBER: US 10/017,066A
19 <141> CURRENT FILING DATE: 2002-05-28
21 <150> PRIOR APPLICATION NUMBER: US 09/680,728
22 <150> PRIOR APPLICATION NUMBER: 2000-10-05            --> 21517
24 <150> PRIOR APPLICATION NUMBER: 60/157,902
25 <151> PRIOR FILING DATE: 1999-10-05
27 <160> NUMBER OF SEQ ID NOS: 50
29 <170> SOFTWARE: FastSEQ for Windows Version 4.0
31 <210> SEQ ID NO: 1
32 <211> LENGTH: 3136
33 <212> TYPE: DNA
34 <213> ORGANISM: Homo Sapiens
36 <220> FEATURE:
37 <221> NAME/KEY: CDS
38 <222> LOCATION: (133)...(1083)
40 <400> SEQUENCE: 1
41 cagagaggct gtatttcagt gcagcctgcc agacctcttc tggaggaaga ctggacaaag     60
42 ggggtcacac attccttcca tacggttgag cctctacctg cctggtgctg gtcacagttc    120
43 agcttcttca tg atg gtg gat ccc aat ggc aat gaa tcc agt gct aca tac    171
44             Met Val Asp Pro Asn Gly Asn Glu Ser Ser Ala Thr Tyr
45              1               5                   10
47 ttc atc cta ata ggc ctc cct ggt tta gaa gag gct cag ttc tgg ttg     219
48 Phe Ile Leu Ile Gly Leu Pro Gly Leu Glu Glu Ala Gln Phe Trp Leu
49      15              20                  25
51 gcc ttc cca ttg tgc tcc ctc tac ctt att gct gtg cta ggt aac ttg     267
52 Ala Phe Pro Leu Cys Ser Leu Tyr Leu Ile Ala Val Leu Gly Asn Leu
53  30              35                  40                  45
55 aca atc atc tac att gtg cgg act gag cac agc ctg cat gag ccc atg     315
56 Thr Ile Ile Tyr Ile Val Arg Thr Glu His Ser Leu His Glu Pro Met
57              50                  55                  60
59 tat ata ttt ctt tgc atg ctt tca ggc att gac atc ctc atc tcc acc     363
60 Tyr Ile Phe Leu Cys Met Leu Ser Gly Ile Asp Ile Leu Ile Ser Thr
61              65                  70                  75
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RAW SEQUENCE LISTING   DATE: 06/06/2002
PATENT APPLICATION: US/10/017,066A   TIME: 14:37:38

Input Set : D:\51158-20024.txt
Output Set: N:\CRF3\06062002\J017066A.raw

```
 63 tca tcc atg ccc aaa atg ctg gcc atc ttc tgg ttc aat tcc act acc      411
 64 Ser Ser Met Pro Lys Met Leu Ala Ile Phe Trp Phe Asn Ser Thr Thr
 65         80              85              90
 67 atc cag ttt gat gct tgt ctg cta cag att ttt gcc atc cac tcc tta      459
 68 Ile Gln Phe Asp Ala Cys Leu Leu Gln Ile Phe Ala Ile His Ser Leu
 69     95              100             105
 71 tct ggc atg gaa tcc aca gtg ctg ctg gcc atg gct ttt gac cgc tat      507
 72 Ser Gly Met Glu Ser Thr Val Leu Leu Ala Met Ala Phe Asp Arg Tyr
 73 110             115             120             125
 75 gtg gcc atc tgt cac cca ctg cgc cat gcc aca gta ctt acg ttg cct      555
 76 Val Ala Ile Cys His Pro Leu Arg His Ala Thr Val Leu Thr Leu Pro
 77             130             135             140
 79 cgt gtc acc aaa att ggt gtg gct gct gtg gtg cgg ggg gct gca ctg      603
 80 Arg Val Thr Lys Ile Gly Val Ala Ala Val Val Arg Gly Ala Ala Leu
 81             145             150             155
 83 atg gca ccc ctt cct gtc ttc atc aag cag ctg ccc ttc tgc cgc tcc      651
 84 Met Ala Pro Leu Pro Val Phe Ile Lys Gln Leu Pro Phe Cys Arg Ser
 85         160             165             170
 87 aat atc ctt tcc cat tcc tac tgc cta cac caa gat gtc atg aag ctg      699
 88 Asn Ile Leu Ser His Ser Tyr Cys Leu His Gln Asp Val Met Lys Leu
 89     175             180             185
 91 gcc tgt gat gat atc cgg gtc aat gtc gtc tat ggc ctt atc gtc atc      747
 92 Ala Cys Asp Asp Ile Arg Val Asn Val Val Tyr Gly Leu Ile Val Ile
 93 190             195             200             205
 95 atc tcc gcc att ggc ctg gac tca ctt ctc atc tcc ttc tca tat ctg      795
 96 Ile Ser Ala Ile Gly Leu Asp Ser Leu Leu Ile Ser Phe Ser Tyr Leu
 97             210             215             220
 99 ctt att ctt aag act gtg ttg ggc ttg aca cgt gaa gcc cag gcc aag      843
100 Leu Ile Leu Lys Thr Val Leu Gly Leu Thr Arg Glu Ala Gln Ala Lys
101             225             230             235
103 gca ttt ggc act tgc gtc tct cat gtg tgt gct gtg ttc ata ttc tat      891
104 Ala Phe Gly Thr Cys Val Ser His Val Cys Ala Val Phe Ile Phe Tyr
105         240             245             250
107 gta cct ttc att gga ttg tcc atg gtg cat cgc ttt agc aag cgg cgt      939
108 Val Pro Phe Ile Gly Leu Ser Met Val His Arg Phe Ser Lys Arg Arg
109     255             260             265
111 gac tct ccg ctg ccc gtc atc ttg gcc aat atc tat ctg ctg gtt cct      987
112 Asp Ser Pro Leu Pro Val Ile Leu Ala Asn Ile Tyr Leu Leu Val Pro
113 270             275             280             285
115 cct gtg ctc aac cca att gtc tat gga gtg aag aca aag gag att cga     1035
116 Pro Val Leu Asn Pro Ile Val Tyr Gly Val Lys Thr Lys Glu Ile Arg
117             290             295             300
119 cag cgc atc ctt cga ctt ttc cat gtg gcc aca cac gct tca gag ccc     1083
120 Gln Arg Ile Leu Arg Leu Phe His Val Ala Thr His Ala Ser Glu Pro
121             305             310             315
123 taggtgtcag tgatcaaact tcttttccat tcagagtcct ctgattcaga ttttaatgtt    1143
124 aacattttgg aagacagtat tcagaaaaaa aatttcctta ataaaaaata caactcagat    1203
125 ccttcaaata tgaaactggt tggggaatct ccattttttc aatattattt tcttctttgt    1263
126 tttcttgcta catataatta ttaataccct gactaggttg tggttggagg gttattactt    1323
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RAW SEQUENCE LISTING   DATE: 06/06/2002
PATENT APPLICATION: US/10/017,066A   TIME: 14:37:38

Input Set : D:\51158-20024.txt
Output Set: N:\CRF3\06062002\J017066A.raw

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127 ttcattttac catgcagtcc aaatctaaac tgcttctact gatggtttac agcattctga 1383
128 gataagaatg gtacatctag agaacatttg ccaaaggcct aagcacggca aaggaaaata 1443
129 aacacagaat ataataaaat gagataatct agcttaaaac tataacttcc tcttcagaac 1503
130 tcccaaccac attggatctc agaaaaatgc tgtcttcaaa atgacttcta cagagaagaa 1563
131 ataatttttc ctctggacac tagcacttaa ggggaagatt ggaagtaaag ccttgaaaag 1623
132 agtacattta cctacgttaa tgaaagttga cacactgttc tgagagtttt cacagcatat 1683
133 ggaccctgtt tttcctattt aattttctta tcaacccttt aattaggcaa agatattatt 1743
134 agtaccctca ttgtagccat gggaaaattg atgttcagtg gggatcagtg aattaaatgg 1803
135 ggtcatacaa gtataaaaat taaaaaaaaa aaagacttca tgcccaatct catatgatgt 1863
136 ggaagaactg ttagagagac caacagggta gtgggttaga gatttccaga gtcttacatt 1923
137 ttctagagga ggtatttaat ttcttctcac tcatccagtg ttgtatttag gaatttcctg 1983
138 gcaacagaac tcatggcttt aatcccacta gctattgctt attgtcctgg tccaattgcc 2043
139 aattacctgt gtcttggaag aagtgatttc taggttcacc attatggaag attcttattc 2103
140 agaaagtctg catagggctt atagcaagtt atttattttt aaaagttcca taggtgattc 2163
141 tgataggcag tgaggttagg gagccaccag ttatgatggg aagtatggaa tggcaggtct 2223
142 tgaagataac attggccttt tgagtgtgac tcgtagctgg aaagtgaggg aatcttcagg 2283
143 accatgcttt atttggggct ttgtgcagta tggaacaggg actttgagac caggaaagca 2343
144 atctgactta ggcatgggaa tcaggcattt ttgcttctga ggggctatta ccaagggtta 2403
145 ataggtttca tcttcaacag gatatgacaa cagtgttaac caagaaactc aaattacaaa 2463
146 tactaaaaca tgtgatcata tatgtggtaa gtttcatttt cttttcaat cctcaggttc 2523
147 cctgatatgg attcctataa catgctttca tccccttttg taatggatat catatttgga 2583
148 aatgcctatt taatacttgt atttgctgct ggactgtaag cccatgaggg cactgtttat 2643
149 tattgaatgt catctctgtt catcattgac tgctctttgc tcatcattga atcccccagc 2703
150 aaagtgccta gaacataata gtgcttatgc ttgacaccgg ttattttttca tcaaacctga 2763
151 ttccttctgt cctgaacaca tagccaggca attttccagc cttctttgag ttgggtatta 2823
152 ttaaattctg gccattactt ccaatgtgag tggaagtgac atgtgcaatt tctatacctg 2883
153 gctcataaaa ccctcccatg tgcagccttt catgttgaca ttaaatgtga cttgggaagc 2943
154 tatgtgttac acagagtaaa tcaccagaag cctggatttc tgaaaaaact gtgcagagcc 3003
155 aaacctctgt catttgcaac tcccacttgt atttgtacga ggcagttgga taagtgaaaa 3063
156 ataaagtact attgtgtcaa gaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 3123
157 aaaaaaaaaa aaa                                                    3136
159 <210> SEQ ID NO: 2
160 <211> LENGTH: 317
161 <212> TYPE: PRT
162 <213> ORGANISM: Homo Sapiens
164 <400> SEQUENCE: 2
165 Met Val Asp Pro Asn Gly Asn Glu Ser Ser Ala Thr Tyr Phe Ile Leu
166  1               5                  10                  15
167 Ile Gly Leu Pro Gly Leu Glu Glu Ala Gln Phe Trp Leu Ala Phe Pro
168              20                  25                  30
169 Leu Cys Ser Leu Tyr Leu Ile Ala Val Leu Gly Asn Leu Thr Ile Ile
170          35                  40                  45
171 Tyr Ile Val Arg Thr Glu His Ser Leu His Glu Pro Met Tyr Ile Phe
172      50                  55                  60
173 Leu Cys Met Leu Ser Gly Ile Asp Ile Leu Ile Ser Thr Ser Ser Met
174 65                  70                  75                  80
175 Pro Lys Met Leu Ala Ile Phe Trp Phe Asn Ser Thr Thr Ile Gln Phe
176              85                  90                  95
177 Asp Ala Cys Leu Leu Gln Ile Phe Ala Ile His Ser Leu Ser Gly Met
```

```
178                 100                 105                 110
179 Glu Ser Thr Val Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile
180         115                 120                 125
181 Cys His Pro Leu Arg His Ala Thr Val Leu Thr Leu Pro Arg Val Thr
182     130                 135                 140
183 Lys Ile Gly Val Ala Ala Val Val Arg Gly Ala Ala Leu Met Ala Pro
184 145                 150                 155                 160
185 Leu Pro Val Phe Ile Lys Gln Leu Pro Phe Cys Arg Ser Asn Ile Leu
186                 165                 170                 175
187 Ser His Ser Tyr Cys Leu His Gln Asp Val Met Lys Leu Ala Cys Asp
188             180                 185                 190
189 Asp Ile Arg Val Asn Val Val Tyr Gly Leu Ile Val Ile Ile Ser Ala
190         195                 200                 205
191 Ile Gly Leu Asp Ser Leu Leu Ile Ser Phe Ser Tyr Leu Leu Ile Leu
192     210                 215                 220
193 Lys Thr Val Leu Gly Leu Thr Arg Glu Ala Gln Ala Lys Ala Phe Gly
194 225                 230                 235                 240
195 Thr Cys Val Ser His Val Cys Ala Val Phe Ile Phe Tyr Val Pro Phe
196             245                 250                 255
197 Ile Gly Leu Ser Met Val His Arg Phe Ser Lys Arg Arg Asp Ser Pro
198         260                 265                 270
199 Leu Pro Val Ile Leu Ala Asn Ile Tyr Leu Leu Val Pro Pro Val Leu
200         275                 280                 285
201 Asn Pro Ile Val Tyr Gly Val Lys Thr Lys Glu Ile Arg Gln Arg Ile
202     290                 295                 300
203 Leu Arg Leu Phe His Val Ala Thr His Ala Ser Glu Pro
204 305                 310                 315
206 <210> SEQ ID NO: 3
207 <211> LENGTH: 320
208 <212> TYPE: PRT
209 <213> ORGANISM: Rat Protein
211 <400> SEQUENCE: 3
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213 1             5                 10                  15
214 Pro Gly Leu Glu Glu Ala His Phe Trp Phe Gly Phe Pro Leu Leu Ser
215             20                25                  30
216 Met Tyr Ala Val Ala Leu Phe Gly Asn Cys Ile Val Val Phe Ile Val
217         35                40                  45
218 Arg Thr Glu Arg Ser Leu His Ala Pro Met Tyr Leu Phe Leu Cys Met
219     50                55                  60
220 Leu Ala Ala Ile Asp Leu Ala Leu Ser Thr Ser Thr Met Pro Lys Ile
221 65                 70                 75                  80
222 Leu Ala Leu Phe Trp Phe Asp Ser Arg Glu Ile Thr Phe Asp Ala Cys
223             85                90                  95
224 Leu Ala Gln Met Phe Phe Ile His Ala Leu Ser Ala Ile Glu Ser Thr
225             100                 105                 110
226 Ile Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile Cys His Pro
227     115                 120                 125
228 Leu Arg His Ala Ala Val Leu Asn Asn Thr Val Thr Val Gln Ile Gly
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RAW SEQUENCE LISTING   DATE: 06/06/2002
PATENT APPLICATION: US/10/017,066A   TIME: 14:37:38

Input Set : D:\51158-20024.txt
Output Set: N:\CRF3\06062002\J017066A.raw

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229     130                   135                   140
230 Met Val Ala Leu Val Arg Gly Ser Leu Phe Phe Phe Pro Leu Pro Leu
231 145                   150                   155                   160
232 Leu Ile Lys Arg Leu Ala Phe Cys His Ser Asn Val Leu Ser His Ser
233                   165                   170         .         175
234 Tyr Cys Val His Gln Asp Val Met Lys Leu Ala Tyr Thr Asp Thr Leu
235             180                   185                   190
236 Pro Asn Val Val Tyr Gly Leu Thr Ala Ile Leu Leu Val Met Gly Val
237         195                   200                   205
238 Asp Val Met Phe Ile Ser Leu Ser Tyr Phe Leu Ile Ile Arg Ala Val
239     210                   215                   220
240 Leu Gln Leu Pro Ser Lys Ser Glu Arg Ala Lys Ala Phe Gly Thr Cys
241 225                   230                   235         .         240
242 Val Ser His Ile Gly Val Val Leu Ala Phe Tyr Val Pro Leu Ile Gly
243                   245                   250                   255
244 Leu Ser Val Val His Arg Phe Gly Asn Ser Leu Asp Pro Ile Val His
245             260                   265                   270
246 Val Leu Met Gly Asp Val Tyr Leu Leu Leu Pro Pro Val Ile Asn Pro
247     275                   280                   285
248 Ile Ile Tyr Gly Ala Lys Thr Lys Gln Ile Arg Thr Arg Val Leu Ala
249     290                   295                   300
250 Met Phe Lys Ile Ser Cys Asp Lys Asp Ile Glu Ala Gly Gly Asn Thr
251 305                   310                   315                   320
253 <210> SEQ ID NO: 4
254 <211> LENGTH: 320
255 <212> TYPE: PRT
256 <213> ORGANISM: Homo Sapiens
258 <400> SEQUENCE: 4
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260 1               5                   10              .   15
261 Pro Gly Leu Glu Lys Ala His Phe Trp Val Gly Phe Pro Leu Leu Ser
262             20                   25                   30
263 Met Tyr Val Val Ala Met Cys Gly Asn Cys Ile Val Val Phe Ile Val
264         35                   40                   45
265 Arg Thr Glu Arg Ser Leu His Ala Pro Met Tyr Leu Phe Leu Cys Met
266     50                   55                   60
267 Leu Ala Ala Ile Asp Leu Ala Leu Ser Thr Ser Thr Met Pro Lys Ile
268 65                   70                   75                   80
269 Leu Ala Leu Phe Trp Phe Asp Ser Arg Glu Ile Ser Ile Glu Ala Cys
270                   85                   90                   95
271 Leu Thr Gln Met Phe Phe Ile His Ala Leu Ser Ala Ile Glu Ser Thr
272             100                   105                   110
273 Ile Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile Cys His Pro
274         115                   120                   125         .
275 Leu Arg His Ala Ala Val Leu Asn Asn Thr Val Thr Ala Gln Ile Gly
276     130                   135                   140
277 Ile Val Ala Val Val Arg Gly Ser Leu Phe Phe Phe Pro Leu Pro Leu
278 145                   150                   155                   160
279 Leu Ile Lys Arg Leu Ala Phe Cys His Ser Asn Val Leu Ser His Ser
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 06/06/2002
PATENT APPLICATION: US/10/017,066A   TIME: 14:37:39

Input Set : D:\51158-20024.txt
Output Set: N:\CRF3\06062002\J017066A.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:41; N Pos. 6,12,15
Seq#:42; N Pos. 3,6,12,15
Seq#:43; N Pos. 12,15
Seq#:44; N Pos. 3,12,15
Seq#:45; N Pos. 3,9,18
Seq#:46; N Pos. 3,9
Seq#:47; N Pos. 6,9,21
Seq#:48; N Pos. 1,13,16
Seq#:49; N Pos. 1,7,10,16
Seq#:50; N Pos. 10,16,19